

SPECIFICATION

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CURABLE EPOXY RESIN COMPOSITIONS AND THE CURED RESIDUES THEREOF

Cross Reference to Related Applications

This application is a division of U.S. Application Serial No. 09/393,772, filed
September 10, 1999, ^{now} patent No. # 6,387,990

Background of Invention

[0001] The present invention relates to curable flame retardant compositions and more particularly to curable epoxy compositions containing a brominated triazine flame retardant additive which compositions are ideally suited for fabricating circuit boards.

[0002] Metal-clad boards, particularly such boards for use in fabricating printed circuits, are well-known in the art. The simplest of such boards generally comprises a resinous plastic (polymeric) substrate to which is bonded at least one thin sheet of an electrically conductive material, preferably copper. The resinous plastic substrate can be clad with the metal foil on one or both sides, depending upon the desired use, and can be rigid or flexible depending upon the composition of the resinous plastic substrate, the choice of reinforcement (if any), and the intended use of the board.

[0003] A number of polyphenylene ether compositions having favorable dielectric properties and utility in circuit board manufacture are known. However, there is a growing need in the industry for laminates with good thermal performance, solvent resistance, and improved dielectric properties such as dissipation factor and dielectric constant. Due to deficiencies in one or more properties, many such compositions have not attained wide commercial use. Specifically, while polyphenylene ethers are excellent dielectrics, deficiencies often are found in areas such as solvent resistance,